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2 DEVICE FOR SUSPENDING A RECORDER
3 AND METHOD FOR USING THE SAME

4
5 BACKGROUND OF THE INVENTION

6 Field of the Invention.

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9 This invention pertains to the general field of carrying a woodwind musical
10 instrument known as a recorder.

11 Description of the Prior Art.

12 The recorder is an instrument that is of such size that it can be carried easily. This
13 instrument is most often used by children in early grade school for instruction in music.
14 Most often the child will purchase a recorder. The child will then carry the recorder to
15 class and carry it in the hand during class. If the child needs to use the hands for another
16 purpose, the recorder is laid down. As such, the recorder is subject to loss, contamination
17 or confusion when play is to be continued. Also, like with anything a child is forced to
18 carry in their hands, the recorder can be inappropriately used as a toy, weapon, or
19 whatever fits the occasion.

20 Prior art is limited to some resourceful teachers that have simply tied a string around
21 the recorder with some sort of loop that is placed around the child's neck to suspend the
22 recorder. Because the knots may slip, come untied or can not be readily untied, this
method has not gained wide support. In addition, after the teacher has tied all the knots
required by the students, the teacher has little time left for instruction. Thus, at the present

1 time, there is no suitable means for the hand free carrying of the recorder. Also, this
2 method has only been applied to recorders possessing a definite ridge along their shaft, and
3 not merely to recorders with a tapered shaft.

4 Objectives.

5 It is therefore an objective of this invention to provide a device for conveniently
6 carrying a recorder with an expanding circumference shaft, from a strap that is worn about
7 the neck.

8 Another objective of the invention is the realization of the above mentioned objective
9 with simple, reliable and inexpensive hardware.

10 SUMMARY OF THE INVENTION

12 The invention provides a device for carrying a recorder and a method for using it.

13 The device comprises a ring attached to a strap. The user wears the strap around
14 their neck, with the ring in the front. The recorder is thus suspended from the neck of the
15 user.

16 The method and apparatus of this invention consist of a ring and an attached strap.
17 The ring is made of durable material and is of sufficient inside diameter so as to fit, after
18 the strap has been secured to the ring, snugly around the shaft of the mouth piece of the
19 recorder. The ring is secured on the recorder by pulling the recorder apart at its dividing
20 point or sliding it over the lower narrow end and then slipping the ring around the mouth
21 piece section and sliding it up the shaft until it is securely lodged on the shaft. Because the
22 diameter of the shaft increases towards the end where the instrument is blown, the ring will

1 be secure on the recorder shaft between the fingering holes and the mouth piece. The two
2 pieces of the recorder are then reconnected, if applicable.

3 Using the device thus frees both hands of the user. This and other advantages of the
4 present invention will be understood and more appreciated after a consideration of the
5 following drawings and the detailed description of the invention.

6 7 BRIEF DESCRIPTION OF THE DRAWINGS

8 FIG. 1 is a perspective view of the ring of the device of the invention.

9 FIG. 2 is a perspective view of the device of the invention.

10 FIG. 3 is a perspective view of a recorder being suspended from the device of the
11 invention.

12 13 DETAILED DESCRIPTION OF THE INVENTION

14 Referring to the drawings, FIG. 1 illustrates the general configuration of the ring 1
15 before the strap is attached to it.

16 The ring 1 is made of durable material so as to be able to withstand the rigors and
17 forces that would be anticipated, when the device is in use by elementary age school
18 children. As illustrated in FIG. 1, the ring 1 has an outer surface 3, an inner surface 4 and
19 a side surface 5. The ring also has a radial thickness, which is defined as the distance
20 between the inner and the outer surface.

21 Referring to FIG. 2, the strap 2 is made of a material that is strong enough to hold
22 the recorder, yet be comfortable when placed around the neck. Knot 6 is any knot that will

1 neatly secure the ends of the strap 2.

2 FIG. 3 shows a recorder A supported by the device of the invention. The recorder
3 A has a proximate end and a distal end. The mouth piece (otherwise known as mouthpiece)
4 can be seen at the proximate end, since it has a larger diameter than the adjoining shaft.
5 The recorder A defines a juncture point C between the two ends. The recorder A can be
6 separated at juncture point C into two sections, lower section D and upper section B. The
7 mouthpiece is included in upper section B. The shape of the recorder is one of substantial
8 circular symmetry around an axis. That is why relevant terms like diameter are used, even
9 though the shape of the shaft might not be exactly circular at some points.

10 When FIG.s 1, 2 and 3 are viewed together, it becomes apparent from scaling
11 considerations that the radial thickness of the ring is about 1/4 the diameter of the recorder
12 at the point of the recorder where the ring is lodged.

13 The relationship of the inner surface 4 and the recorder is best seen in FIG. 3. The
14 inner surface 4 of the ring is circular with a diameter larger than the diameter of the
15 recorder A at the point of the juncture C. The diameter of the upper section increases
16 gradually from the juncture point C to the air hole of the mouth piece. As the recorder
17 diameter thus increases, at some point it becomes larger than the diameter of the inner
18 surface 4. This will cause the ring, as it is being slid from juncture point C towards the
19 mouthpiece, to become lodged at some point before reaching the mouthpiece.

20 It is preferred that the inner diameter is such that lodging happens when the device
21 is approximately one inch above the juncture point C.

22 The ring 1 is attached to the recorder A by pulling apart the two pieces B and D of